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**United States Patent** [19][11] **Patent Number:** **5,493,641****Brown**[45] **Date of Patent:** **Feb. 20, 1996**[54] **PRECISION AUTOMATIC SCROLLING FOR AN IMAGE DISPLAY SYSTEM**5,263,135 11/1993 Dei ..... 395/138 X  
5,297,240 3/1994 Priem et al. .... 395/133 X[75] Inventor: **Jerry R. Brown**, Gardiner, N.Y.**FOREIGN PATENT DOCUMENTS**[73] Assignee: **International Business Machines Corporation**, Armonk, N.Y.404955A 1/1991 European Pat. Off. .  
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2183294 7/1990 Japan .[21] Appl. No.: **446,359****OTHER PUBLICATIONS**[22] Filed: **May 22, 1995**

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**Related U.S. Application Data**

[63] Continuation of Ser. No. 305,618, Sep. 14, 1994, abandoned, which is a continuation of Ser. No. 810,465, Dec. 19, 1991, Pat. No. 5,384,909.

*Primary Examiner*—Heather R. Herndon  
*Assistant Examiner*—Cliff N. Vo  
*Attorney, Agent, or Firm*—Aziz M. Ahsan[51] Int. Cl.<sup>6</sup> ..... **G06F 17/50**[52] U.S. Cl. .... **395/155**[58] Field of Search ..... 395/133, 138,  
395/147, 153, 157, 158, 161[57] **ABSTRACT**

A system and method of precision automatic scrolling for use in an image display system. Upon selecting a displayed entity having an off-screen end or other point which is desired to be brought into view, the entity's definitional vector coordinate characteristics are compared to the coordinates of the selection point on the display screen. The results of the comparison provide the XY coordinates of the entity which are furthest from the point of selection. The resulting XY coordinates are then made the new center point of the area in view. The current level of magnification is maintained during this operation. The present system and method thus eliminates the need for manual panning/scrolling or demagnification to bring the desired endpoint into view. The present system and method can also be applied to locate and display a nearest endpoint or a closest point of intersection between two entities.

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